

Listing of claims:

1. (Amended)

A composition of matter comprising a purified peptide containing the sequence ~~at least one sequence chosen from HAIYPRH (Seq ID No. 1) and THRPPMWSPVWP (Seq. ID No. 2).~~

2. (Amended)

A composition comprising at least one peptide containing the sequence ~~within its sequence at least one sequence chosen from HAIYPRH (Seq. ID No. 1) and THRPPMWSPVWP (Seq. ID No. 2)~~ wherein said peptide is fused to a protein or another peptide.

3. (Amended)

A composition of claim 2 wherein said sequence containing the sequence ~~at least one sequence chosen from HAIYPRH (Seq. ID No. 1) and THRPPMWSPVWP (Seq. ID No. 2)~~ is fused to a chemotherapeutic agent.

4. (Amended)

A composition of claim 2 wherein said sequence containing the sequence ~~at least one sequence chosen from HAIYPRH (Seq. ID No. 1) and THRPPMWSPVWP (Seq. ID No. 2)~~ is fused to an imaging agent.

5. (Amended)

A composition of claim 4 wherein said sequence containing ~~the sequence at least one sequence chosen from HAIYPRH (Seq. ID No. 1)~~ or THRPPMWSPVWP (Seq. ID No. 2) is fused to a fluorescing agent.

6. (Amended)

A composition of claim 2 wherein said sequence containing ~~the sequence at least one sequence chosen from HAIYPRH (Seq. ID No. 1)~~ and THRPPMWSPVWP (Seq. ID No. 2) is fused to an antigen.

7. (Canceled)

7x.

(Newly added)

A method of targeting an active agent to the human transferrin receptor by administration of said agent fused to a sequence containing the sequence THRPPMWSPVWP (Seq. ID No. 2) to a human subject.